DERWENT-ACC-NO: 1986-269329

DERWENT-WEEK: 198641

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TITLE: Anionic flocculant for treating waste water contg. mineral particles - comprises 2-acrylamide-2-methyl:propane sulphonic acid, n-methylol:acrylamide and acrylamide

PATENT-ASSIGNEE: MITSUBISHI CHEM IND LTD[MITU]

PRIORITY-DATA: 1985JP-0038593 (February 27, 1985) , 1987US-0115160 (October 30, 1987)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 61197008 A	September 1, 1986	N/A	007	N/A
JP 93033083 B	May 18, 1993	N/A	008	B01D 021/01
US 4783270 A	November 8, 1988	N/A	000	N/A

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 61197008A	N/A	1985JP-0038593	February 27, 1985
JP 93033083B	N/A	1985JP-0038593	February 27, 1985
JP 93033083B	Based on	JP 61197008	N/A
US 4783270A	N/A	1987US-0115160	October 30, 1987

INT-CL (IPC): B01D021/01, C02F001/52 , C02F001/56 , C08F220/58 , C09K003/00

ABSTRACTED-PUB-NO: JP 61197008A

BASIC-ABSTRACT:

The flocculant consists of copolymers formed from 0.5-10 mol.% of 2-acrylamide-2-methylpropane **sulphonic acid** or its salt (**AMPS**). 44-99.5 (45-99.5) mol.% of N-methylolacrylamide, and 0-59.5 (0-54.5) mol.% of acrylamide.

An example of aq. soln. of the flocculant was prepd. by uniformly dissolving 1.0g of a raw copolymer consisting of 1.0 mol.% of AMPS and 99.0 mol.% of acrylamide to an aq. soln. dissolving 0.27g Na3PO4.12H2O in 41.4g of deionised water; adding a 5 wt.% formalin aq. soln. by an amount equi-molar to the acrylamide units in the copolymer; heating the resulting soln. at 50 deg.C for 3 hrs.; then diluting the soln. with a NaCl aq. soln. into a 0.1 g/dl aq. soln. of the flocculant. Thus prepd. 0.01% aq. soln. of the flocculant was added to a phosphate rock waste water diluted with 6 times of water; sedimentation rate was 13.1 cm/min. and sedimentation volume afger 60 min. was 18.5 ml.

USE/ADVANTAGE - Useful for the treatment of waste water, produced in processing phosphate rocks, contg. 1-10% of mineral clay fine particles like smectite or illite, or phosphate rock remaining solid matters like fluoroapatite or aluminium phosphate. the flocculant can be produced in a cost effective manner, so is usable in an industrial scale.

ABSTRACTED-PUB-NO: US 4783270A

EQUIVALENT-ABSTRACTS:

Minute mineral particles in suspension are **coagulated** by adding a coagulant into neutral waste water contg. such particles. Coagulant comprises a polymer of (a) 0.5-10 mol.% of 2-acrylamido -2-methylpropanesulphonic acid or its salt; (b) 40-99.5 mol.% of N-hydroxymethylacrylamide; and (c) 20.3-59.5 mol.% of acrylamide; in (d) aq. soln. of 1N NaCl at 25 deg.C in concn. 0.1 g per dl., showing reduced viscosity of 10-30 g. per dl.

Pref. neutral waste water is that discharged when mixed mineral ore is treated, esp. that for phosphorus ore, tailing waste water from copper ore, or from aggregates washing.

. ADVANTAGE - Cost of treatment is low, and on an industrial scale. (11pp)

CHOSEN-DRAWING:	Dwg.0/2
TITLE-TERMS:	ANION **FLOCCULATE** TREAT WASTE WATER CONTAIN MINERAL PARTICLE COMPRISE ACRYLAMIDE METHYL PROPANE SULPHONIC ACID

N METHYLOL ACRYLAMIDE ACRYLAMIDE

DERWENT-CLASS: A14 A97 D15

CPI-CODES: A04-A; A04-D04A2; A12-M01; A12-W11E; D04-A01B; D04-B07B;

UNLINKED-DERWENT-REGISTRY-NUMBERS: ; 1740U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials:	0037 0203 0231 2000 2180 2198 2318 2509 2708 2709 2710 0622 0643 0642 0621
Multipunch Codes:	014 034 04- 05- 074 075 076 079 086 231 24& 28& 316 359 398 54- 546 57- 61- 014 034 04- 05- 074 075 079 086 231 24& 27& 316 359 398 54- 546 57- 61- 014 034 04- 05- 074 075 076 079 086 231 24& 27& 316 359 398 54- 546 57- 61-

SECONDARY-ACC-NO:

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